

**24. Incorrect. The answer is true not false.**

The change in the capital labor ratio is

$$\dot{k} = (\delta + n)k - sf(k)$$

To find steady state set  $\dot{k} = 0$ . Then

$$\dot{k} = sf(k) - (\delta + n)k = 0 \rightarrow sf(k) = (\delta + n)k$$

Since  $c = (1-s)f(k)$ , if  $k$  is constant  $c$  is also constant. The above also applies to a steady state consumption per capita which we can then solve for from the steady state condition as follows:

$$sf(k) = (\delta + n)k$$

Substitute in for  $sf(k) = f(k) - c$  into this steady state condition

$$f(k) - c = (\delta + n)k \rightarrow c = f(k) - (\delta + n)k$$